Remarks

Claims 1-21 are pending. Claims 1, 3, 10-13, 16, 19, and 20 are amended. The specification is amended to include the application serial number of a referenced application. No new matter is added.

Rejection of Claims under 35 U.S.C. § 112

Claims 1, 3, 10-13, 16, and 19-21 are rejected under 35 U.S.C. § 112, second paragraph. While the applicant believes use of the term "if" is definite, both in the context of the claims and in light of the specification, the applicant has amended claims 1, 3, 10-13, 16, and 19 to further clarify the claim language. Claim 20 is amended to correct its dependence. The applicant respectfully submits that these amendments in no way change the scope of coverage of claims 1, 3, 10-13, 16, and 19-21.

Rejection of Claims under 35 U.S.C. § 103

Claims 1-10 and 13-21 stand rejected under 35 U.S.C. § 103 as being unpatentable over DeKoning, U.S. Patent No. 6,691,245, in view of Takeda et al., U.S. Patent Publication No. 2004/0172509 (Takeda). Claims 11 and 12 stand rejected under 35 U.S.C. § 103 as being unpatentable over DeKoning in view of Takeda, and further in view of Carlson, U.S. Patent No. 6,377,959. The applicant respectfully traverses these rejections.

DeKoning and Takeda, taken alone or in combination, fail to teach or suggest a method comprising:

> reading the portion of the data by
>
> reading the requested portion received from the second host, and
>
> when a sub-portion of the portion of the data is available from the first
> data storage and the sub-portion was not included in the requested portion,
> reading the sub-portion from the first data storage,

as required by independent claim 1, and generally required by independent claims 13, 16, and 19. Regarding these limitation, the Examiner refers to paragraphs 0061, 0062, and 0064 of Takeda:

[0061] Thereupon, the secondary host 100B then transmits a copy request ("journal copy request command") to the secondary disk array device 200B to initiate journal transfer from the primary disk array device 200A (Step 9300).

[0062] After receiving the journal copy request command, the secondary disk array device 200B issues a data read request to the primary disk array device 200A (Step 9310). The primary disk array device 200A transmits the requested data to the secondary disk array device 200B by executing the copy program 2110. Details of the journal copy processing will be described later.

. . .

[0064] The initial copy and the journal copy processing may be performed asynchronously and in parallel. That is, the initial copy can be performed anytime after PVOL 2212 and SVOL 2214 have been specified based on the pair generation command, regardless of whether or not the journal acquisition process and the journal copy process has been performed or is being performed. However, as long as the initial copy has not been completed, the contents of SVOL 2214 does not reflects PVOL 2212 even if the restoration process 9126 has been performed at the secondary disk array device 200B. The restore or restoration process involves updating or coping the data of PVOL 2212 in the SVOL 2214 using the journal that have been received from the primary disk array device 200A according to the copy process 9124.

The applicant respectfully disagrees.

Regarding the "reading the portion of the data by reading the requested portion received from the second host," The Examiner refers to paragraphs 0061 and 0062. Here, Takeda describes a host 100B transmitting a request to disk array 200B, which in turn issues a request to disk array 200A. Requested data is then transmitted back to disk array 200B. Thus, Takeda is not teaching reading *anything* from data received from something corresponding to the claimed second host. Moreover, the cited portion of Takeda does not teach or suggest even receiving something from host 100B.

Regarding the "when a sub-portion of the portion of the data is available from the first data storage and the sub-portion was not included in the requested portion, reading the sub-portion from the first data storage," the Examiner refers to paragraph 0064. Here, Takeda merely describes the relationship between the contents of volumes SVOL 2214 and PVOL 2212. Nothing in the cited portion of Takeda teaches or suggests responding

to the situation where a sub-portion of a requested portion is not available in a received portion, and Takeda certainly fails to teach or suggest reading that unavailable portion from anything corresponding to the claimed "first data storage".

As motivation to combine Takeda and DeKoning, the Examiner refers to "suggestions" in paragraphs 0005 and 0012 of Takeda that purportedly prompt an artisan to "devise a technology where a plurality of storage subsystems connected through a network, are managed collectively and provided to the user as a plural subsystem." Paragraph 0005 points out an alleged deficiency in the prior art, while paragraph 0012 summarizes one aspect of Takeda's disclosure. Neither portion suggests a combination with a system such as DeKoning's. Moreover, nothing about the cited portions of Takeda when combined with DeKoning yields technology where a plurality of storage subsystems connected through a network, are managed collectively and provided to the user as a plural subsystem. At least according to Takeda, one need look no further (i.e., *not* to DeKoning) than his disclosure for collectively managed storage subsystems.

Thus, the applicant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness. In addition to the claim elements not taught or suggested by the cited references as described above, the Examiner has not shown that there is some suggestion or motivation to combine the references, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. Neither reference suggests such a combination, and the Examiner provides no explanation regarding the specific understanding or technological principle within the knowledge of one of ordinary skill in the art that would have suggested the combination, as required by, for example, *In re Rouffet,* 47 USPQ2d 1453 (Fed. Cir. 1998).

Accordingly, the applicant respectfully submits independent claims 1, 13, 16, and 19 are allowable over the cited references. Claims 2-12, 14-15, 17-18, and 20-21 depend from respective independent claims and are allowable for at least this reason.

In view of the amendments and remarks set forth herein, the application is believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the examiner is requested to telephone the undersigned.

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I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA, 22313-1450, on _____ Nov 28 _____, 2006.

_____   11/28/06
Attorney for Applicant(s)   Date of Signature

Respectfully submitted,

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